CENTER FOR SELF ORGANIZING INTELLIGENT SYSTEMS

CENTER

The Center for Self-Organizing Intelligent Systems (CSOIS) was first funded in 1993 to build on its core intelligent systems technology to develop commercializable products to the economic advantage of the state. The Center provides design services to Utah companies to develop intelligent systems solutions for new and improved commercial products. The Center maintains a national and international reputation as a leading contributor to the advancement of intelligent systems research.

TECHNOLOGY

Intelligent systems technology has grown to include virtually any device and/or software concept which attempts to artificially emulate the unique cognizance and control abilities of the human mind. Artificial neural networks are designed to mimic the ability of the brain and central nervous system to learn and generalize from past experience. Fuzzy logic was introduced as a way of emulating the reasoning processes fundamental to human intelligence. Virtual presence controllers attempt to place the remote human operator or controller in a virtual environment identical to that encountered by the controlled process. Neural control emulates the sensory and communication mechanisms of the human neural system.

ACCOMPLISHMENTS

Two companies using CSOIS technology have been formed: **Visionary Products Inc. and Kachemak R&D Inc.** In addition, an existing company, **ME Labs**, a Japanese company, has located an office at the USU Research Park to capitalize on CSOIS technologies. Because of the success of its robotic intelligent vehicle mobility technology, **CSOIS was awarded a major Department of Defense research and development contract to apply that technology to lightweight military unmanned ground vehicles.** First year funding is in the amount of $2.5 M and with an additional $4 M expected in the second year. During the first year the project is expected to bring in around $1 M in salaries and benefits to the Cache valley region.

CONTACT

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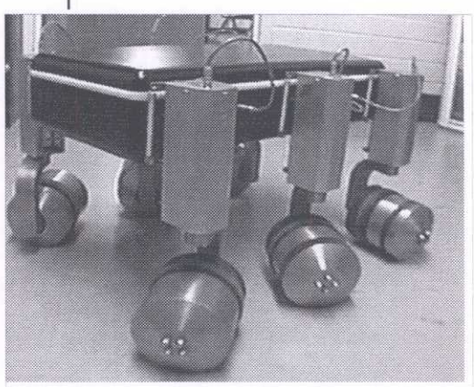
Can You Imagine...

. . . driving a remote mechanical rover across a Martian landscape, maneuvering around obstacles, retrieving soil samples, and pointing the rover camera in all directions to view the surrounding landscape, all from your personal computer.

THE CENTER INVESTIGATES ELECTRONIC AND SOFTWARE SYSTEMS THAT EMULATE THE LEARNING AND REASONING CAPABILITIES OF THE HUMAN MIND AND APPLIES THEM TO COMMERCIAL PRODUCTS.



- The newest rover, T1, which is the successor to the ARCIII